

02



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,087	08/28/2001	Ichiro Okajima	213306US2PCT	3965

22850 7590 09/09/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
----------

HASHEM, LISA

ART UNIT	PAPER NUMBER
----------	--------------

2645

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/926,087	<b>Applicant(s)</b> OKAJIMA, ICHIRO	
	<b>Examiner</b> Lisa Hashem	<b>Art Unit</b> 2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2001.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **FINAL DETAILED ACTION**

### ***Claim Objections***

1. The dependency of dependent claims 12 and 13 are improper. Examiner assumes: claim 12 depends on claim 6 and claim 13 depends on claim 1. Correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term 'locally' in claim 5 is indefinite because it is not defined in where the software is installed. It is not defined if the software is installed local to a radio station or local to a network. Appropriate action is requested.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-10, 12, and 13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,671,509 by Tanaka et al, hereinafter Tanaka.

Regarding claim 1, Tanaka discloses a radio communication method of communication

Art Unit: 2645

between two radio stations (Fig. 1: 2, 12), comprising the steps of:

mutually exchanging information between said two radio stations about one or more radio

communication methods with which each radio station is equipped as software by

communicating according to a first radio communication method defined beforehand (col. 2,

lines 21-30; col. 3, lines 8-37; col. 6, lines 10-44; col. 7, lines 3-35);

selecting a second radio communication method suitable for a communication application to be

used for communication between said two radio stations from among the one or more radio

communication methods with which at least one of the two radio stations is equipped (col. 7,

lines 36-51);

identifying, based on the information about the one or more radio communication methods, one

of the two radio stations (Fig. 1, 12) that is not equipped with software of the second radio

communication method (col. 7, lines 15-18; col. 7, line 62 – col. 8, line 9);

transmitting software of the second radio communication method to said one of the two radio

stations identified by said identifying step from another one of the two radio stations according

to said first radio communication method (col. 7, lines 44-51); and

conducting communications between said two radio stations by the communication application

according to said second radio communication method based on said software (col. 7, lines 52-

61).

Regarding claim 2, wherein Tanaka further discloses the radio communication method as claimed in claim 1, wherein said selecting step selects radio communication method that satisfies communication quality required by said communication application as the second radio communication method (col. 7, lines 3-15; col. 7, lines 36-43; col. 8, line 56 – col. 9, line 3).

Regarding claim 3, wherein Tanaka further discloses the radio communication method as claimed in claim 1, wherein said identifying step checks whether both of the radio stations are equipped with said second radio communication method or only one of the two radio stations is equipped with said second radio communication method (col. 6, lines 45-56; col. 7, lines 28-35), and said transmitting step transmits the software of said second radio communication method from said another one of the radio stations to the identified one of the radio stations when said another one of the radio stations determines that only said another one of the radio stations is equipped with said second radio communication method (col. 5, line 65 – col. 6, line 10; col. 6, lines 45-56; col. 7, lines 36-51).

Regarding claim 4, wherein Tanaka further discloses the radio communication method as claimed in claim 3, wherein the identified one of the radio stations acquires the software of said second radio communication method transmitted from said another one of the radio stations when the identified one of the radio stations determines that only said another one of the radio stations is equipped with said second radio communication method (col. 5, line 65 – col. 6, line 10; col. 7, lines 16-27).

Regarding claim 5, wherein Tanaka further discloses the radio communication method as claimed in claim 3, wherein each of the two radio stations performs communications by said communication application according to the second radio communication method based on the software installed locally (in each radio station) when each of the two radio stations determines that the second radio communication method is provided in both the radio stations (col. 7, lines 47-51).

Regarding claim 6, Tanaka discloses a radio station that communicates with another radio station by a communication application according to a radio communication method by controlling radio communication means that comprises hardware that is independent of radio communication methods (Fig. 1: 2, 12; col. 2, line 21-39), comprising:

memory means to store one or more sets of software of radio communication methods (col. 6, lines 22-23; col. 6, lines 37-38); information exchange control means to mutually exchange information about one or more radio communication methods installed as software by communicating according to said first radio communication method defined beforehand (col. 7, lines 3-35);

radio communication method selection means to select a second radio communication method suitable for said communication application from radio communication methods available in at least one of the radio station and said another radio station (col. 7, lines 36-51);

checking means to check, based on the information about the one or more radio communication methods, whether said second radio communication method is installed in both the radio station and the other radio station or only one of the radio station and the other radio station (col. 6, lines 45-56; col. 7, lines 28-35); and

software transmitting control means to read the software of said second radio communication method from said memory means and transmit the same to said another radio station by said first radio communication method when the checking means determines that said second radio communication method is installed only at the radio station, wherein communication with the other radio station by said communication application according to said second radio communication method is conducted by controlling said radio communication means based on

Art Unit: 2645

the software of said second radio communication method after transmission of the software of said second radio communication method to the other radio station by said software transmission control means (col. 7, lines 46-61).

Regarding claim 7, wherein Tanaka further discloses the radio station as claimed in claim 6, comprising software acquisition control means to acquire software of said second radio communication method transmitted from the other radio station when said checking step determined that said second radio communication method is equipped only with the other radio station, and to store the same into said memory means (col. 7, lines 44-61).

Regarding claim 8, wherein Tanaka further discloses the radio station as claimed in claim 6, comprising controlling said radio communication means based on said software by reading the software of said second radio communication method from said memory means when said second radio communication method is determined available in both the radio station and the other radio station by said checking means (col. 7, lines 47-51).

Regarding claim 9, wherein Tanaka further discloses the radio station as claimed in claim 6, wherein said radio communication method selection means selects a radio communication method that will satisfy the communication quality that said communication application requires as the second radio communication method suitable for the communication application concerned (col. 7, lines 3-15; col. 7, lines 36-43; col. 8, line 56 – col. 9, line 3).

Regarding claim 10, wherein Tanaka further discloses the radio station as claimed in claim 6, which is used as a mobile station or a base station in a mobile communications system (Fig. 1, 2; col. 6, lines 11-26).

Art Unit: 2645

Regarding claim 12, wherein Tanaka further discloses a mobile communication system, comprising two or more radio stations as claimed in claim 6, each of which functions as one of a mobile station, a relay station, and a base station (Fig. 1: 2, 12; column 6, lines 11-44).

Regarding claim 13, wherein Tanaka further discloses a radio communication method as claimed in claim 1, wherein each of said two radio stations functions as one of a mobile station, a relay station, and a base station (Fig. 1: 2, 12; column 6, lines 11-44).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka, as applied to claim 6, in further view of U.S. Patent No. 5,864,300 by Cho.

Regarding claim 11, wherein Tanaka further discloses the radio station as claimed in claim 6, which is used as a base station in a mobile ad hoc communication system (Figure 1, 2; column 6, lines 11-26).

Tanaka does not disclose the radio station that initially transmits software is used as a mobile station.

Cho discloses a wireless or mobile station that communicates with another wireless or mobile station by a communication application according to a radio communication method by controlling radio communication means that comprises hardware that is independent of radio communication methods (see Figure 2; column 1, lines 16-25), comprising: memory means to



Art Unit: 2645

store one or more sets of software of wireless communication methods; information exchange control means to mutually exchange information about a wireless communication method installed as software by communicating according to said wireless communication method; wireless communication method selection means to determine a wireless communication method suitable for said communication application from wireless communication methods available in at least one of the wireless station and said another wireless station as the wireless communication method based on said information about the wireless communication method available at the wireless station and said another wireless station; checking means to check whether said wireless communication method is installed in both the wireless station and the other wireless station or only one of the wireless station and the other wireless station; and software transmitting control means to read the software of said wireless communication method from said memory means and transmit the same to said another wireless station by said wireless communication method (column 3, line 21-39).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the radio station of Tanaka to include a wireless or mobile station that is used as a radio station as taught by Cho. One of ordinary skill in the art would have been lead to make such a modification since the radio station can be a mobile or wireless station in a mobile communication system, wherein the mobile station can initially transmit software to another radio station.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.
9. Accordingly, this action is **FINAL**.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- U.S. Patent No. 5,854,978 by Heidari discloses a radio station with software reconfiguration features
11. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(571) 273-8300 (for formal communications intended for entry)

**Or call:**

(571) 272-2600 (for customer service assistance)

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Hashem whose telephone number is (571) 272-7542. The examiner can normally be reached on M-F 8:30-5:30.

Art Unit: 2645


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LH

lh

September 6, 2005

  
FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600